IN THE CLAIMS

Please amend the claims as follows. This listing of the claims will replace all prior versions and listings of the claims in the application.

1. (Original) An isolated polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 (S1 isolate), SEQ ID NO:3 (JL isolate), SEQ ID NO:4 (RJL1 isolate), SEQ ID NO:5 (L2 isolate), and SEQ ID NO:6 (composite).

2. (Original) A biologically active fragment of the polypeptide of claim 1.

3. (Original) An isolated nucleic acid encoding the polypeptide of claim 1.

4. (Original) An isolated nucleic acid encoding the fragment of claim 2.

5. (Original) An isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of the nucleotide sequence of SEQ ID NO:8 (S1 coding sequence), the nucleotide sequence of SEQ ID NO:10 (JL coding sequence), the nucleotide sequence of SEQ ID NO:11 (RJL1 coding sequence), and the nucleotide sequence of SEQ ID NO:9 (L2 coding sequence).

6. (Original) An antibody that specifically binds the polypeptide of claim 1.

7. (Original) An antibody that specifically binds the fragment of claim 2.

8. (Canceled).

9. (Original) A composition comprising the polypeptide of claim 1 and a pharmaceutically acceptable carrier.

10. (Original) A composition comprising the fragment of claim 2 and a pharmaceutically acceptable carrier.

11. (Original) A composition comprising the nucleic acid of claim 3 and a pharmaceutically acceptable carrier.

12. (Original) A composition comprising the nucleic acid of claim 4 and a pharmaceutically acceptable carrier.

13. (Original) A composition comprising the nucleic acid of claim 5 and a pharmaceutically acceptable carrier.

14. (Original) A composition comprising the antibody of claim 6 and a pharmaceutically acceptable carrier.

15. (Original) A composition comprising the antibody of claim 7 and a pharmaceutically acceptable carrier.

16. (Original) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject, comprising contacting a biological sample from the subject with the polypeptide of claim 1 under conditions whereby an antigen/antibody complex can form and detecting formation of an antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

17. (Original) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject comprising contacting a biological sample from the subject with the polypeptide of claim 2 under conditions whereby an antigen/antibody complex can form and detecting formation of an

antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

18. (Original) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject comprising contacting a biological sample from the subject with the antibody of claim 6 under conditions whereby an antigen/antibody complex can form and detecting formation of an antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

19. (Original) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject comprising contacting a biological sample from the subject with the antibody of claim 7 under conditions whereby an antigen/antibody complex can form and detecting formation of an antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

20. (Original) A method of diagnosing infection by *Mycloplasma pneumoniae* in a subject, comprising contacting a biological sample from the subject with the nucleic acid of any of claims 3, 4 or 5 under conditions whereby hybridization of nucleic acid molecules can occur and detecting a hybridization complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

21. (Currently amended) A kit for diagnosing an infection by *Mycoplasma pneumoniae* in a subject comprising the polypeptide of claim 1~~, the fragment of claim 2, the antibody of claim 6, the nucleic acid of claims 3-5 and/or the antibody of claim 7~~.

22. (Original) A method of eliciting an immune response in a subject, comprising administering to the subject an effective amount of the polypeptide of claim 1.

23. (Original) A method of eliciting an immune response in a subject, comprising administering to the subject an effective amount of the fragment of claim 2.

24. (Original) A method of eliciting an immune response in a subject comprising administering to the subject an effective amount of the nucleic acid of claim 3.

25. (Original) A method of eliciting an immune response in a subject comprising administering to the subject an effective amount of the nucleic acid of claim 4.

26. (Original) A method of providing passive immunity to a subject, comprising administering to the subject an effective amount of the antibody of claim 6.

27. (Original) A method of providing passive immunity to a subject, comprising administering to the subject an effective amount of the antibody of claim 7.

28. (Original) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the polypeptide of claim 1.

29. (Original) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the fragment of claim 2.

30. (Currently amended) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject comprising administering to the subject an effective amount of the nucleic acid of ~~any of claims 3, 4 or 5~~claim 3.

31. (Original) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the antibody of claim 6.

32. (Original) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the antibody of claim 7.

33-45. (Canceled).